

## SUGGESTED LIST OF MEASURES TO REDUCE PM-10 PARTICULATE MATTER

These measures may or may not be feasible  
and available to the implementing entities

MEASURE	POTENTIAL IMPLEMENTING ENTITY
<b>Fugitive Dust Control Rules</b>	
1. <b>Public education and outreach (e.g., Clark County) with assistance from local governments</b> - This measure would involve publicity campaigns (e.g., Bring Back Blue) that increase public awareness of the PM-10 problem and discourage citizens from participating in activities that generate airborne dust.	County, local governments
2. <b>Extensive Dust Control Training Program (e.g., Clark County)</b> - This measure would involve conducting more frequent dust control training classes and implementing a formal certification program. The County would provide advanced training to representatives of trade associations to qualify them to conduct classes and issue certifications. The County video on dust control rules and practices will be updated and distributed to public agencies and private companies for use in training their employees.	County, private sector
3. <b>Dust Managers required at construction sites of 50 acres and greater (e.g., Clark County)</b> - This measure would require a dust manager to be present on construction sites where 50 or more acres of soil are disturbed.	County
4. <b>Dedicated enforcement coordinator for unpaved roads, unpaved parking, and vacant lots (e.g., Clark County)</b> - This measure would require that additional resources be dedicated to strengthen enforcement of Rule 310.01 for unpaved roads, unpaved parking lots, and vacant disturbed lots.	County
5. <b>Establish a certification program for Dust Free Developments to serve as an industry standard</b> - This measure would create a program to certify and publicize companies that routinely demonstrate exceptional efforts to reduce airborne dust.	State, County
6. <b>Better defined tarping requirements in Rule 310 to include enclosure of the bed</b> - This measure would modify Rule 310 to require that the cargo compartments of trucks whether loaded or empty be fully enclosed prior to traveling on paved public roads.	County

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7. <b>Conduct mobile monitoring to measure PM-10 and issue NOVs</b> - This measure involves deployment of a vehicle that has been instrumented to monitor PM-10 and meteorological conditions, so that sources can be identified, and immediate remediation and/or enforcement actions taken.	County
8. <b>Conduct nighttime and weekend consistent inspections</b> - This measure would involve proactive consistent inspections of nonpermitted and permitted PM-10 sources during non-daylight hours and on weekends.	County
9. <b>Increase consistent inspection frequency for permitted facilities</b> - This measure would increase the number of proactive consistent inspections conducted at permitted facilities.	County
10. <b>Increase number of proactive consistent inspections in areas of highest PM-10 emissions densities</b> - intensify training and education - incentive program for compliance - This measure would focus on the areas of highest PM-10 emissions density by increasing the number of inspectors and proactive consistent inspections, conducting on-site training, offering incentives to reduce PM-10, and performing community outreach.	County
11. <b>Notify violators more rapidly to promote immediate compliance</b> - This measure would require inspectors that observe visible dust (e.g., opacity or trackout levels that are approaching rule limits) to call the permit holder and make reasonable efforts to inform a person on-site, so that measures can be taken to prevent, reduce, or mitigate dust generation before a violation occurs.	County
12. <b>Provide timely notification regarding high pollution days</b> - This measure would provide timely notification to permitted and nonpermitted sources when a High Pollution Advisory or High Pollution Watch is issued by ADEQ.	County
13. <b>Develop a program for subcontractors</b> - This measure would develop a program to register, educate, and give notices of violation (NOVs) to subcontractors through Rule 310. This program would not preclude the issuance of NOVs to the permit holder.	County
14. <b>Reduce dragout and trackout emissions from nonpermitted sources</b> - This measure would add dragout provisions to Rules 310 and 310.01 and enforce dragout and trackout provisions for nonpermitted sources. For example, trackout from salvage yards would be enforced by the County.	County

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15. <b>Cover loads/haul trucks in Apache Junction</b> - This measure would require loaded and empty haul trucks to be covered in the City of Apache Junction.	City of Apache Junction
16. <b>Require dust coordinators at earthmoving sites of 5-50 acres</b> - This measure would require an onsite dust control coordinator to be present on sites of 5 to 50 acres during active soil and rock excavation, soil and rock removal, and construction operations, including road construction operations, and related transport activities at access points to paved or unpaved roads. This person could also perform other tasks, but would be responsible for managing dust prevention and control on the site.	County
<b>General</b>	
17. <b>Create a dedicated funding source for the Maricopa County Air Program</b> - This measure would create a dedicated funding source for the County Air Program to support increased enforcement of Rule 310.01, and other air programs, as necessary. Example: Restore In-Lieu funding or some other fee to emissions testing, or other approach.	State, County
<b>Industry</b>	
18. <b>Fully implement Rule 316</b> - This measure would enforce the provisions of Rule 316, adopted by Maricopa County in June 2005, for nonmetallic mineral processing sources of PM-10.	County, private sector
19. <b>Require private companies to use PM-10 certified street sweepers on paved areas including parking lots (e.g., Clark County)</b> - This measure will require paved surfaces (e.g., parking lots) owned by private companies to be swept using PM-10 certified street sweepers.	State, private sector
20. <b>Provide incentives to shift hours of operation during stagnant conditions in November through February</b> - This measure would provide incentives to postpone activities that generate dust until after 9 a.m. on days between November 1 and February 15 when ADEQ issues a High Pollution Advisory (HPA) under stagnant conditions.	State
<b>Nonroad Activities</b>	
21. <b>Ban or discourage use of leaf blowers on high pollution advisory days</b> - This measure would restrict or prohibit the use of leaf blowers on days when ADEQ issues a High Pollution Advisory (HPA).	State, County
22. <b>Reduce off-road vehicle use in areas with high off-road vehicle activity (e.g., Goodyear Ordinance) - impoundment or confiscation of vehicles for repeat violations</b> - This measure would involve development and enforcement of ordinances or implementation of other actions to prevent or discourage off-road vehicle use in the PM-10 nonattainment area.	State, County, local governments

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23. <b>Create a fund to provide incentives to retrofit nonroad diesel engines and encourage early replacements with advanced technologies</b> - This measure would establish funding to offer incentives for owners of older nonroad diesel equipment to retrofit or repower existing engines or replace with newer, less-polluting technology.	State
24. <b>Encourage early implementation of clean fuels for nonroad equipment.</b> - This measure would provide incentives for nonroad equipment to be retrofitted with diesel retrofit kits, newer clean diesel technologies and fuels; or “green diesel” biodiesel fuel, or other fuels that are cleaner than petroleum diesel.	State
25. <b>Ban leaf blowers from blowing debris into streets</b> - This measure would ban leaf blowers from blowing debris into the streets in Maricopa County.	State, County
26. <b>Implement a leaf blower outreach program</b> - This measure would involve the development and distribution of educational materials on reducing leaf blower dust and would require the private sector to provide the printed materials to customers who purchase or rent leaf blowers.	County, private sector
27. <b>Regulate and increase enforcement of ATV use on State land</b> - This measure would require the State to regulate and increase enforcement of all-terrain and off-highway vehicle use on State lands located in Area A.	State
28. <b>Ban ATV use on high pollution days</b> - This measure would ban ATV use on High Pollution Advisory days in Area A.	State
<b>Paved Roads</b>	
29. <b>Sweep streets with PM-10 certified street sweepers</b> - This measure would require all public paved roads in the PM-10 nonattainment area to be swept with purchased or contracted PM-10 certified sweepers.	County, local governments
30. <b>Retrofit onroad diesel engines with particulate filters</b> - This measure would establish a program with financial incentives to encourage the voluntary retrofit pre-2007 onroad diesel vehicles with particulate filters and oxidation catalysts.	State, County
<b>Unpaved Parking Lots</b>	
31. <b>Pave or stabilize existing unpaved parking lots (e.g., upgrade to Phoenix Parking Code) - strengthen enforcement</b> - This measure would involve strengthening and proactively enforcing dust control rules or ordinances that reduce fugitive dust and PM-10 emissions from existing unpaved parking and vehicle maneuvering areas.	County, local governments

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<b>Unpaved Roads</b>	
32. <b>Pave or stabilize existing public dirt roads and alleys</b> - This measure would revise Rule 310.01 to require paving or stabilizing of public dirt roads that carry less than 150 vehicles per day (e.g., more than 50 vehicles per day).	County, local governments
33. <b>Limit speeds to 15 miles per hour on high traffic dirt roads</b> - This measure would require 15 mph speed limit signs to be posted on dirt roads in the PM-10 nonattainment area that carry high traffic (e.g., 50-150 vehicles per day).	County, local governments
34. <b>Prohibit new dirt roads including those associated with lot splits</b> - This measure would prevent the construction of new dirt roads (e.g., prohibit wildcat subdivisions; require paving of roads before issuing a building permit) in the PM-10 nonattainment area.	State, County
<b>Unpaved Shoulders</b>	
35. <b>Pave or stabilize unpaved shoulders</b> - This measure would require paving or stabilizing dirt shoulders on paved public roads that carry a high level of traffic (e.g., more than 2,000 vehicles or 50 heavy duty trucks per average weekday).	County, local governments
<b>Unpaved Surfaces</b>	
36. <b>Create a fund for paving and stabilizing in high pollution areas</b> - This measure would create a particulate mitigation fund to pave and stabilize land surfaces in and around high pollution areas - Establish a grant program for private businesses to stabilize and pave - Direct fine monies from Maricopa County for stabilization efforts.	State, County, private sector
<b>Vacant Lots</b>	
37. <b>Strengthen and increase enforcement of Rule 310.01 for vacant lots</b> - This measure would increase the frequency of inspections and enforcement actions to reduce dust emitted by vacant lots.	County
38. <b>Restrict vehicular use and parking on vacant lots (e.g., Phoenix)</b> - This measure would strengthen existing rules and ordinances that prohibit vehicle trespass on vacant land.	State <sup>1</sup> , County, local governments
39. <b>Enhanced enforcement of trespass ordinances and codes</b> - This measure would increase the enforcement of vehicle trespass ordinances and codes for vacant lots.	County, local governments

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<sup>1</sup>State was added by the Regional Council on March 28, 2007.

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40. <b>Ability to assess liens on parcels to cover the costs of stabilizing them<sup>2</sup></b> - This measure would give the County the authority to provide that the costs of stabilizing the disturbed areas on any vacant lot be assessed upon the property to which the stabilization was applied.	State, County
<b>Woodburning</b>	
41. <b>Increase fines for open burning (currently \$25)</b> - This measure would increase the maximum fine for open burning in ARS Title 49-501 from \$25 per occurrence to a level that would serve as a deterrent (e.g., \$500 per occurrence).	State, County
42. <b>Restrict use of outdoor fireplaces and pits and ambience fireplaces in the hospitality industry</b> - This measure would prohibit burning in outdoor fireplaces, outdoor pits, and ambience fireplaces in the hospitality industry, and ban other nonessential wood fires on days during the period November 1 - February 15 when ADEQ issues a High Pollution Advisory (HPA).	State, County
<b>Additional PM-10 Measures Approved by the MAG Regional Council on May 23, 2007, with the understanding that the actions would receive further refinement and input in the implementation process</b>	
43. <b>Require barriers in addition to Rule 310 stabilization requirements for construction where all activity has ceased, except for sites in compliance with storm water permits.</b>	County
44. <b>Reduce the tolerance of trackout to 25 feet before immediate cleanup is required for construction sites be placed in Maricopa County Rule 310.</b>	County
45. <b>No visible emissions across the property line be placed in Maricopa County Rule 310 and 310.01, and in local ordinances for nonpermitted sources as appropriate.</b>	County, local governments
46. <b>Modeling cumulative impacts</b> - This measure would need further definition by Maricopa County and the Arizona Department of Environmental Quality and be subject to input to ensure that unintended consequences for temporary uses are not created.	State, County
47. <b>MAG member agencies reexamine existing ordinances to ensure that nonpermitted sources, such as unpaved parking, unpaved staging areas, unpaved roads, unpaved shoulders, vacant lots and open areas, receive priority attention.</b>	Local governments

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<sup>2</sup>This measure was added by the MAG Regional Council on March 28, 2007.

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48. Forward to the Governor's Agricultural Best Management Practices Committee that cessation of tilling be required on high wind days and that agricultural best management practices be required in existing Area A.	State
49. The Arizona State Legislature provide funding to the Arizona Department of Environmental Quality for four agriculture dust compliance officers for a total of five inspectors.	State
50. Support Maricopa County in receiving statutory authority to prohibit new dirt roads including those associated with lot splits. At a minimum, this would be within the Maricopa County PM-10 Nonattainment Area.	State, County
51. Each year the Maricopa Association of Governments conduct an inventory of dirt roads and estimated traffic counts by jurisdiction to measure progress in eliminating dirt roads. Also each year, MAG would issue a report on the status of the implementation of the committed measures for this region by the cities, towns, Maricopa County and the State. The reports would be made available to the Governor's Office, Legislature, the Arizona Department of Environmental Quality and the Environmental Protection Agency.	MAG, State, County, local governments
52. MAG allocate \$5 million in FY 2007 MAG federal funds matched on a 50/50 basis by MAG member agencies for paving dirt roads and shoulders projects and that these projects be immediately submitted to MAG for consideration at the July meetings of the MAG Management Committee and Regional Council for an amendment to the Transportation Improvement Program. These funds would be on a nonsupplanting basis for new projects.	MAG, County, local governments
53. The Arizona State Legislature provide funding to this region for paving dirt roads and shoulders and provide a funding source to local governments for the enforcement of nonpermitted sources, such as unpaved parking, unpaved vehicle staging areas, unpaved roads, unpaved shoulders, vacant lots and open areas. Also to provide funding to Maricopa County for additional inspectors for the enforcement of Maricopa County Rule 310.	State, County, local governments
54. Maricopa County Rules 310 and 316 be amended to provide that larger construction and mineral production facilities in excess of 50 acres be required to install two or more PM-10 samplers certified by the County. These samplers will be operated simultaneously for five consecutive hours during operating hours for the site or facility. These samplers will not meet EPA approved methods for ambient air quality monitoring.	County

MEASURE	POTENTIAL IMPLEMENTING ENTITY
55. <b>Maricopa County should increase consistent enforcement in the areas where PM-10 violations continue to occur, along with efforts throughout the region. When an area continually experiences higher PM-10 concentrations than other areas, increased enforcement in areas experiencing high monitor readings is needed to protect public health.</b>	County

Special Notes:

1. Further refinement of these measures may be made as additional information becomes available through the planning process. During the summer of 2007, the Maricopa Association of Governments will use the Maricopa County 2005 Periodic Emissions Inventory, finalized in May 2007, as well as commitments for measures received from the implementing entities, to quantify emission reductions and conduct air quality modeling for the Five Percent Plan.
2. The Governor's Agricultural Best Management Practices Committee is in the process of evaluating potential measures to further reduce PM-10 emissions from agriculture for consideration for the Five Percent Plan for PM-10. This Committee was established by law in 1998 (Arizona Revised Statutes, Title 49-457) to develop an agricultural PM-10 general permit that would address the need for controls on agricultural operations. The potential agricultural measures will be presented to the MAG Air Quality Technical Advisory Committee for consideration.